

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-15 (Canceled).

16. (New) An anti-adhesive layer for a wound dressing, said anti-adhesive layer comprising a xerogel containing silica and at least one hydrophobic organic silicon compound, wherein the anti-adhesive layer has a relative coating weight on the wound dressing from 0.05 % to 5 %.

17. (New) The anti-adhesive layer according to Claim 16, wherein the at least one hydrophobic organic silicon compound comprises at least one compound selected from the group consisting of:

a trialkoxysilane having the formula $R^1Si(OR)_3$, wherein R^1 is an alkyl group having 8 to 18 carbon atoms;

an arylsilane having the formula $R^2Si(OR)_3$, wherein R^2 is an aryl group;

a diarylsilane having the formula $R^2_2Si(OR)_2$, wherein R^2 is an aryl group;

triphenylsilane chloride;

t-butyldiphenylsilane chloride;

hydrophobically modified polysiloxanes having alkyl and/or phenyl side groups;

oleophobic compounds having the formula $R^3Si(OR)_3$, wherein R^3 is a perfluorinated alkyl group; and

oleophobic polysiloxanes having perfluorinated alkyl side chains.

18. (New) The anti-adhesive layer according to Claim 16, containing an epoxysilane compound effective to provide the anti-adhesive layer with partially hydrophilic properties.

19. (New) A composite comprising:

a wound dressing; and

a coating composition comprising a nanosol containing silica and at least one hydrophobic organic silicon compound, or

an anti-adhesive layer comprising a xerogel with silica and at least one hydrophobic organic silicon compound.

20. (New) The composite according to Claim 19, wherein the at least one hydrophobic organic silicon compound comprises at least one compound selected from the group consisting of:

a trialkoxysilane having the formula $R^1Si(OR)_3$, wherein R^1 is an alkyl group having 8 to 18 carbon atoms;

an arylsilane having the formula $R^2Si(OR)_3$, wherein R^2 is an aryl group;

a diarylsilane having the formula $R^2_2Si(OR)_2$, wherein R^2 is an aryl group;

triphenylsilane chloride;

t-butyldiphenylsilane chloride;

hydrophobically modified polysiloxanes having alkyl and/or phenyl side groups;

oleophobic compounds having the formula $R^3Si(OR)_3$, wherein R^3 is a perfluorinated alkyl group; and

oleophobic polysiloxanes having perfluorinated alkyl side chains.

21. (New) The composite according to Claim 19, containing an epoxysilane compound effective to provide the anti-adhesive layer with partially hydrophilic properties.

22. (New) The composite according to Claim 19, wherein the wound dressing comprises a flat textile form, a foamed plastic or a gel.

23. (New) A method for preparing a coating composition comprising a nanosol containing silica and at least one hydrophobic organic silicon compound, said method comprising:

hydrolyzing tetraalkoxysilanes in an organic, organic-aqueous or aqueous solvent to provide the nanosol, and

mixing the at least one hydrophobic organic silicon compound with the nanosol to prepare the coating composition.

24. (New) A method for providing an anti-adhesive coating on a wound dressing, said method comprising the steps:

hydrolyzing tetraalkoxysilanes in an organic, organic-aqueous or aqueous solvent to provide a nanosol;

mixing at least one hydrophobic organic silicon compound with the nanosol to provide a coating composition;

applying the coating composition to the wound dressing to provide a coated wound dressing; and

drying the coated wound dressing by solvent removal to form a xerogel layer and to thereby provide the anti-adhesive coating on the wound dressing.

25. (New) The method according Claim 24, wherein the step of applying the coating composition comprises a single-sided coating, a two-sided coating or an impregnation of the wound dressing.

26. (New) The method according to Claim 24, wherein the step of applying the coating is implemented as a closed coating or impregnation or as a partly discontinuous coating or impregnation.

27. (New) The method according to Claim 24, further comprising a heat treatment step conducted at a temperature from 25°C to 180°C following the drying step.

28. (New) The method according to Claim 24, wherein the anti-adhesive coating decreases adhesion between a wound and the wound dressing.

29. (New) The method according to Claim 24, wherein the at least one hydrophobic organic silicon compound comprises at least one compound selected from the group consisting of:

a trialkoxysilane having the formula $R^1Si(OR)_3$, wherein R^1 is an alkyl group having 8 to 18 carbon atoms;

an arylsilane having the formula $R^2Si(OR)_3$, wherein R^2 is an aryl group;

a diarylsilane having the formula $R^2_2Si(OR)_2$, wherein R^2 is an aryl group;

triphenylsilane chloride;

t-butylldiphenylsilane chloride;

hydrophobically modified polysiloxanes having alkyl and/or phenyl side groups;

oleophobic compounds having the formula $R^3Si(OR)_3$, wherein R^3 is a perfluorinated alkyl group; and

oleophobic polysiloxanes having perfluorinated alkyl side chains.

30. (New) The method according to Claim 24, in which the coating composition contains an epoxysilane compound effective to provide the wound dressing with partially hydrophilic properties.